RHIC Run 7 StartUp Schedule and Tasks

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Caution! The following schedule is subject to change. Please note release date above.

1 Revised Schedule Milestones

1. Blue cooldown complete. **Wed 7 Mar**.
2. Gold beam in Blue ring. **Thur 8 Mar**.
3. Yellow cooldown complete. **Tue 13 Mar**.
4. Gold beam in Yellow ring. Begin 10 day setup. **Thur 15 Mar**.
5. Begin ramping intensity; overnight stores for experiments. **Sun 25 Mar**.
6. High-intensity collisions; physics mode. **Sun 1 Apr**.
7. Begin NSRL setup. **Mon 5 Mar**. (Fault study with Linac protons Monday and Tuesday. Setup C and Si ppm with Au Wednesday and Thursday.)
8. First proton beam to BLIP. **Wed 7 Mar**.
9. NSRL run begins. BLIP running at full intensity. **Mon 12 Mar**.
10. RHIC Physics ends; begin warm-up to liquid N2 temperature. **Tue 26 Jun**.
11. Warm-up to liquid N2 temperature complete. **Sat 30 Jun**.

2 Old Schedule Milestones

1. Gold beam in Booster. **Mon 12 Feb**.
2. Gold beam in AGS. **Wed 14 Feb**.
3. Blue cooldown complete. **Sat 17 Feb**.
4. Gold beam in Blue ring. **Tue 20 Feb**.
5. Yellow cooldown complete. **Sun 25 Feb**.
6. Gold beam in Yellow ring. Begin 10 day setup. **Mon 26 Feb**. (Experiments will have daytime access through Wed 28 Feb.)
7. Begin ramping intensity; overnight stores for experiments. **Wed 7 Mar**.
8. High-intensity collisions; physics mode.**Wed 14 Mar**.
9. Begin NSRL setup. **Mon 5 Mar**. (Fault study with Linac protons; setup C and Si ppm with Au).
10. First proton beam to BLIP. **Wed 7 Mar**.
11. NSRL run begins. BLIP running at full intensity. **Mon 12 Mar**.
12. RHIC Physics ends; begin warm-up to liquid N2 temperature. **Tue 26 Jun**.
13. Warm-up to liquid N2 temperature complete. **Sat 30 Jun**.

3 Current Schedule and Tasks

3.1 Thur 1 Mar

Work with beam in Booster and AGS until 11:30 pm.

3.2 Fri 2 Mar

Maintenance day. Open Tandem MP7 to repair foil oscillator and install new foils. MP6 services an outside user until Saturday morning.

3.3 Sat 3 Mar

Beam from MP6 available for Booster injection by noon. Work with beam in Booster and AGS.

3.4 Sun 4 Mar

Continue work with beam in Booster and AGS.

3.5 Mon 5 Mar

Complete radiation safety check-off list for operation of Booster with protons from Linac.

Setup for fault study with proton loss near the place where the LTB line crosses the EBIS-to-Booster line. Fault study will most likely occur in the late afternoon or early evening.

3.6 Tue 6 Mar

Continue fault study work if necessary.

3.7 Wed 7 Mar

Tandem MP7 up and delivering Au^{31+} beam to Booster. Setup PPM operation in Booster with carbon (C^{5+}) and gold (Au^{31+}) from MP6 and MP7 respectively. Setup extraction of carbon from Booster and transport to the NSRL target room.

3.8 Thur 8 Mar

Setup PPM operation in Booster with silicon (Si^{9+}) and gold (Au^{31+}) from MP6 and MP7 respectively. Setup extraction of silicon from Booster and transport to the NSRL target room.

3.9 Fri 9 Mar

Return to PPM setup with carbon (C^{5+}) and gold (Au^{31+}) from MP6 and MP7 respectively. This is the setup to be used Monday 12 March for the

start of the NSRL run.

4 Old Schedule and Tasks

4.1 Tue 20 Feb

1. Work with Au beam in blue until 13:00.
2. Then RHIC access for Cryogenics and PS work until 19:00. During this time the RF group will work on the AGS bunch merge.
3. At 19:00 secure RHIC for beam and work with Au in blue over night.

4.2 Wed 21 Feb

1. The RF group will work on capture in blue from 9 am to 1 pm.
2. From 1 pm to 8 pm there will be RHIC access for the experiments; also blue power supply work if necessary. During this time the RF group will work on the AGS bunch merge.
3. Overnight continue work with beam in blue.

4.3 Thur 22 Feb

1. Beam in blue until 11 am; then RHIC access for experiments, cryogenics, and power supply personnel until 7 pm. The RF group will work on capture in blue no earlier than 7 am and no later then 11 am. Then if possible they will work on the AGS bunch merge.
2. Overnight (until 8 am next morning) continue work with beam in blue.

4.4 Fri 23 Feb

1. Beam in blue until 8 am; then RHIC access for experiments, cryogenics, and power supply personnel until 8 pm. During this time the RF group continues to work on the bunch merge in AGS.
2. Overnight (until 8 am next morning) continue work with beam in blue.

4.5 Sat 24 Feb

1. Beam in blue until 8 am; then RHIC access for experiments, cryogenics, and power supply personnel until 6 pm. During this time the RF group continues to work on the bunch merge in AGS.

2. Overnight continue work with beam in blue.

4.6 Sun 25 Feb

1. Beam in blue until noon; then RHIC access for experiments, cryogenics, and power supply personnel until 4 pm. During this time the RF group continues to work on the bunch merge in AGS.

2. For the remainder of the afternoon and overnight, continue work with beam in blue.

5 Original Injector Setup Schedule and Tasks

5.1 Day 1 (Mon 12 Feb)

1. Transport Au^{31+} beam to TTB beamstop.

2. Setup injection of Au^{31+} in Booster on BU1.

3. Work on AGS Radiation Safety Check-Off items.

5.2 Day 2 (Tue 13 Feb)

1. Setup acceleration of Au^{31+} in Booster.

2. Complete AGS Radiation Safety Check-Off List.

5.3 Day 3 (Wed 14 Feb)

1. Setup extraction of Au^{31+} from Booster and transport to AGS. Use BTA foil number 4 (0.005 inch thick carbon).

2. Setup Au^{77+} injection in AGS on AU1. Measure revolution frequency.

3. Allow beam to debunch on AGS injection porch; setup capture of debunched beam on $h = 12$; accelerate on $h = 12$.
4. Investigate stripping with new BTA foils.
5. Investigate modified vertical tune quad string in AGS.

5.4 Day 4 (Thur 15 Feb)

1. Setup Booster-AGS synchro with bunch-to-bucket capture at $h = 24$ on AGS injection porch.
2. Setup 4 transfers of gold to AGS per AGS cycle. Set up cogging.
3. Begin work on merge. (When not working on merge, revert to debunch followed by rebunch and acceleration on $h = 12$.)
4. Continue work with new BTA foils.
5. Investigate modified vertical tune quad string in AGS.

5.5 Day 5 (Fri 16 Feb)

1. Continue work on merge.
2. Continue work with new BTA foils.
3. Work on AGS transition jump setup.

5.6 Day 6 (Sat 17 Feb)

1. Continue work on merge.
2. Continue work with new BTA foils.
3. Work on AGS transition jump setup.

5.7 Day 7 (Sun 18 Feb)

1. Continue work on merge.
2. Continue work with new BTA foils.
3. Work on AGS transition jump setup.

5.8 Day 8 (Mon 19 Feb)

1. Complete Radiation Safety Check-Off items to allow extraction from AGS to the W-dump.
2. Setup AGS extraction.
3. Setup transport to W-dump.
4. Continue work on merge.
5. Continue work with new BTA foils.

5.9 Day 9 (Tue 20 Feb)

1. Continue AGS extraction and ATR transport work.
2. Continue work on merge.
3. Continue work with new BTA foils.
4. ATR Studies?

5.10 Day 10 (Wed 21 Feb)

1. Complete AGS extraction and ATR transport work.
2. Complete merge setup.
3. ATR studies?